

**ABSTRACT OF THE DISCLOSURE**

A fuel injection system for an internal combustion engine has an upstream fuel injector provided upstream from the throttle valve and a downstream fuel injector provided downstream therefrom. A device is provided for determining a fuel injection quantity of the upstream and downstream fuel injectors. A sensor detects the intake temperature TA on the upstream side from an injection area of the upstream fuel injector. A device is provided for seeking an intake temperature correction factor KTA on the basis of the intake temperature TA and a fuel injection quantity of the upstream fuel injector. At least one of the fuel injection quantities due to the upstream and downstream fuel injectors is corrected on the basis of the intake temperature correction factor KTA.